AMENDMENTS TO THE CLAIMS

1.   (Currently Amended)   An image display control apparatus that controls light transmittance of liquid crystals of a liquid crystal display screen for displaying an image based on an inputted image signal and controls, according to the light transmittance of the liquid crystals, an amount of light emitted by a backlight unit for illuminating a back of the liquid crystal display screen based on the image signal, the image display control apparatus comprising:

an image state detection unit operable to detect a state of the image based on the image signal;

an image signal transformation unit operable to transform the image signal by performing predetermined signal processing on said image signal based on the state of the image detected by the image state detection unit, and control the light transmittance of the liquid crystals based on the transformed image signal; and

a resource control unit operable to: assign an arithmetic operation resource, for performing which performs an arithmetic operation, exclusively to the image state detection unit, instead of to the image signal transformation unit, at a predetermined time when the image state detection unit is to use the arithmetic operation resource; and assign the arithmetic operation resource to the image signal transformation unit, instead of to the image state detection unit, at a predetermined time when the image signal transformation unit is to use the arithmetic operation resource respectively at predetermined timings,

wherein the image state detection unit detects the state of the image using the assigned arithmetic operation resource, and

the image signal transformation unit transforms the image signal using the assigned arithmetic operation resource.

2.   (Currently Amended) The image display control apparatus according to Claim 1, further comprising a color space transformation unit operable to transform a color component signal includingconsisting of R, G and B component signals in the image signal into a color information signal including at least a brightness signal and a chroma signal, and output said color information signal to the image signal transformation unit,

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wherein the resource control unit assigns the arithmetic operation resource exclusively to the color space transformation unit at a predetermined timing, and

the color space transformation unit transforms the color component signal into the color information signal using the assigned arithmetic operation resource.

3. (Currently Amended) The image display control apparatus according to Claim 2, further comprising a second color space transformation unit operable to transform the color information signal including at least the brightness signal and the chroma signal into the color component signal including~~consisting of~~ the R, G and B component signals and output said transformed color component signal, said color information signal being the image signal transformed by the image signal transformation unit,

wherein the resource control unit assigns the arithmetic operation resource exclusively to the second color space transformation unit at a predetermined timing, and

the second color space transformation unit transforms the color information signal into the color component signal using the assigned arithmetic operation resource.

4. (Original) The image display control apparatus according to Claim 3,

wherein the image signal transformation unit includes:

a brightness transformation unit operable to transform the brightness signal outputted from the color space transformation unit, based on the state of the image detected by the image state detection unit; and

a chroma transformation unit operable to transform the chroma signal outputted from the color space transformation unit, based on the state of the image detected by the image state detection unit,

the resource control unit assigns the arithmetic operation resource exclusively to the brightness transformation unit at a predetermined timing, and assigns the arithmetic operation resource exclusively to the chroma transformation unit at a predetermined timing,

the brightness transformation unit transforms the brightness signal using the assigned arithmetic operation resource, and

the chroma transformation unit transforms the chroma signal using the assigned

arithmetic operation resource.

5.   (Original) The image display control apparatus according to Claim 4, further comprising a clock signal generation unit operable to generate a clock signal,

wherein the resource control unit counts cycles of the clock signal generated by the clock signal generation unit and assigns the arithmetic operation resource according to a count number.

6.   (Original) The image display control apparatus according to Claim 5,

wherein each of the image state detection unit, the image signal transformation unit, the color space transformation unit and the second color space transformation unit performs predetermined processing on each pixel in the image signal, and

a time interval between inputs of said each pixel in the image signal is longer than the cycle of the clock signal generated by the clock signal generation unit.

7.   (Original) The image display control apparatus according to Claim 6, comprising a plurality of resource units equipped with the arithmetic operation resources respectively,

wherein the resource control unit assigns one or plural number of the resource units to each of the image state detection unit, the image signal transformation unit, the color space transformation unit and the second color space transformation unit, said number of the resource units to be assigned being determined according to the processing performed respectively by each of the image state detection unit, the image signal transformation unit, the color space transformation unit and the second color space transformation unit.

8.   (Currently Amended) The image display control apparatus according to Claim 7,
      wherein the arithmetic operation unit resource is a multiplication unit.

9.   (Original) The image display control apparatus according to Claim 8,
      wherein the image state detection unit detects the state of the image of each frame

based on the image signal, and

the image signal transformation unit transforms an image signal of a frame which is to be inputted subsequently to said each frame based on the state of the image of said each frame detected by the image state detection unit.

10.   (Currently Amended) An image display control method executed by an image display control apparatus that controls light transmittance of liquid crystals of a liquid crystal display screen for displaying an image based on an inputted image signal and controls, according to the light transmittance of the liquid crystals, an amount of light emitted by a backlight unit for illuminating a back of the liquid crystal display screen based on the image signal, the image display control method comprising:

an image state detection step of detecting a state of the image based on the image signal;

an image signal transformation step of transforming the image signal by performing predetermined signal processing on said image signal based on the state of the image detected in the image state detection step, and controlling the light transmittance of the liquid crystals based on the transformed image signal; and

a resource control step of: assigning an arithmetic operation resource, ~~for performing~~ which performs an arithmetic operation, ~~exclusively~~ to an image state detection unit operable to execute the image state detection step, instead of to an image signal transformation unit operable to execute the image signal transformation step, at a predetermined time when the image state detection unit is to use the arithmetic operation resource; and assigning the arithmetic operation resource to ~~an~~ the image signal transformation unit, instead of to the image state detection unit, at a predetermined time when the image signal transformation unit is to use the arithmetic operation resource ~~operable to execute the image signal transformation step respectively at predetermined timings,~~

wherein in the image state detection step, the image state detection unit detects the state of the image using the assigned arithmetic operation resource, and

in the image signal transformation step, the image signal transformation unit transforms the image signal using the assigned arithmetic operation resource.

11.   (Currently Amended) The image display control method according to Claim 10,

wherein in the resource control step, cycles of a clock signal generated by a clock signal generation unit is~are~counted, and the arithmetic operation resource is assigned according to a count number.

12.   (Currently Amended) A program, embodied on a computer-readable medium, executed by an image display control apparatus that controls light transmittance of liquid crystals of a liquid crystal display screen for displaying an image based on an inputted image signal and controls, according to the light transmittance of the liquid crystals, an amount of light emitted by a backlight unit for illuminating a back of the liquid crystal display screen based on the image signal, the program~comprising:~causing the image display control apparatus to execute:

an image state detection step of detecting a state of the image based on the image signal;

an image signal transformation step of transforming the image signal by performing predetermined signal processing on said image signal based on the state of the image detected in the image state detection step, and controlling the light transmittance of the liquid crystals based on the transformed image signal; and

a resource control step: of assigning an arithmetic operation resource, for performing~which performs an arithmetic operation, exclusively~to an image state detection unit operable to execute the image state detection step, instead of to an image signal transformation unit operable to execute the image signal transformation step, at a predetermined time when the image state detection unit is to use the arithmetic operation resource; and assigning the arithmetic operation resource to an~the image signal transformation unit, instead of to the image state detection unit, at a predetermined time when the image signal transformation unit is to use the arithmetic operation resource operable~to~execute~the~image~signal~transformation~step~respectively~at~predetermined timings,

wherein in the image state detection step, the image state detection unit detects the state of the image using the assigned arithmetic operation resource, and

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in the image signal transformation step, the image signal transformation unit transforms the image signal using the assigned arithmetic operation resource.

13.   (Currently Amended) An image display apparatus comprising:

a liquid crystal display screen operable to display an image;

a backlight unit operable to illuminate a back of the liquid crystal display screen; and

an image display control apparatus that controls light transmittance of liquid crystals of the liquid crystal display screen based on an inputted image signal and controls, according to the light transmittance of the liquid crystals, an amount of light emitted by the backlight unit based on the image signal,

wherein the image display control apparatus includes:

an image state detection unit operable to detect a state of the image based on the image signal;

an image signal transformation unit operable to transform the image signal by performing predetermined signal processing on said image signal based on the state of the image detected by the image state detection unit, and control the light transmittance of the liquid crystals based on the transformed image signal; and

a resource control unit operable to: assign an arithmetic operation resource, ~~for performing~~ which performs an arithmetic operation, ~~exclusively~~ to the image state detection unit, instead of to the image signal transformation unit, at a predetermined time when the image state detection unit is to use the arithmetic operation resource; and assign the arithmetic operation resource to the image signal transformation unit, instead of to the image state detection unit, at a predetermined time when the image signal transformation unit is to use the arithmetic operation resource ~~respectively at predetermined timings~~,

wherein the image state detection unit detects the state of the image using the assigned arithmetic operation resource, and

the image signal transformation unit transforms the image signal using the assigned arithmetic operation resource.

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